



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,416	11/14/2001	Hiroaki Masaoka	111107	7042
25944	7590	05/14/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			TUGBANG, ANTHONY D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/987,416		MASAOKA, HIROAKI	
	<b>Examiner</b>		<b>Art Unit</b>	
		A. Dexter Tugbang	3729	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/14/01</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of the invention of Group II, Claims 2-6, in Paper No. the response filed on 5/5/04 is acknowledged. The traversal is on the ground(s) that both groups recite "confirming connection of a terminal connection portion in which a plurality of male terminals are inserted respectively into a plurality of female terminals to make an electrical connection therebetween". This is not found persuasive because, while the examiner agrees that the feature above is common to both groups of inventions, i.e. Claims 1 and 2, the distinctness between the inventions was not relied upon in the above common feature. It is the uncommon features between both groups of inventions, i.e. Claims 1 and 2, that determines the distinctness between the inventions. In addition to the reasons for distinctness cited in the previous Office Action, Claim 2 or the invention of Group II, does not require any "detecting a state" of the movable elements, as required by Group I. The differences between the invention of Group I and II would clearly present two different lines of patentability, require different art, and even the applicability of different case law. The factors altogether considered would place a burden on the examiner to examine both inventions.

The requirement is still deemed proper and is therefore made FINAL.

2. Claim 1 has been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the response filed on 5/5/04.

Art Unit: 3729

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: An Apparatus for Confirming Connection of a Terminal Connecting Portion.

### ***Claim Objections***

4. Claim 2 is objected to because of the following informalities. The recitation of "said conduction test device...respectively;" (lines 15-18), although understood in light of the specification, is a bit awkwardly worded. The examiner suggests adding the phrase of --the conductive portions-- after "conduction position," (line 17).

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 2-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Verge 4,965,928.

Verge discloses an apparatus comprising the following structure: electrically conductive movable elements (wires 4 in Fig. 9); female terminals 6; male terminals 71; a conduction test

device (station 13 in Fig. 1); and conductive portions (exposed portions of wires not covered by insulation in Fig. 9).

With respect to the detailed recitation of “said movable elements...male terminals” (lines 8-14 of Claim 2), these limitations are fully satisfied by Verge in that Verge shows the movable elements 4 in a “waiting position”, (in Fig. 9) with the male and female terminals being apart. Subsequently, the male and female terminals are connected to one another (see col. 10, lines 24+), which can be read as the “conduction position” or alternatively, the “correct connection condition”.

With respect to the detailed recitation of “when all of...conductive” (last 3 lines of Claim 2), these limitations are also satisfied by Verge in which the conduction portions become conductive to the extent that an electrical test is performed (see col. 5, lines 25-30).

Regarding Claim(s) 3-5, each of the movable elements of Verge further comprise a conductor (portion of wires 4 that are insulated), which is in contact with the conductive portions (portion of wires 4 exposed and not covered by insulation), and an insulator (insulation surrounding the wire shown in Fig. 9). The movable elements (wires 4) are disposed in the female terminals 6 (see Fig. 9) with the “conductive portions” (exposed portion of wires 4) being placed in direct contact with both the movable elements and the to-be-connected female terminals 6.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3729

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Verge.

Verge discloses the claimed apparatus further including male terminals 71 that are disposed on bus bars 72, 73 in a junction block. Verge does not appear to mention that the female terminals 6 are disposed in connectors of a printed circuit board of an electronic control unit.

The examiner takes Official Notice that disposing male and female terminals in connectors of a printed circuit board is conventional, old, and notoriously well known in the art, at least for the benefits of providing a certain degree of electrical circuitry within the electronic control unit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Verge by disposing the female terminals in connectors of a printed circuit board of an electronic control unit for the well known benefits of achieving a certain degree of electrical circuitry.

### ***Conclusion***

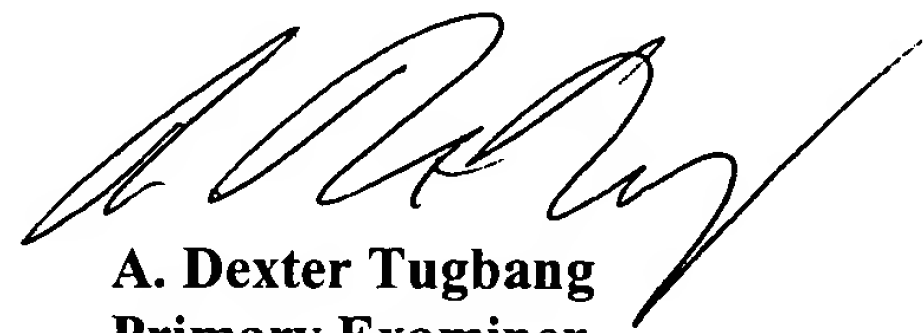
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**A. Dexter Tugbang**  
**Primary Examiner**  
**Art Unit 3729**

May 13, 2004